TABLE 1-continued

First Mat	Second Mat	Test I	Test II	Test III	Test IV
4	A	−23	−4	−21	+28
5	A	−16	+2	−14	+30
6	A	−35	+2	−16	+11
1	B	−9	−17	+6	−9
2	B	+9	−28	+11	+15
3	B	+2	−16	−2	0
4	B	+17	−3	+22	+32
5	B	+16	−3	+14	+32
6	B	+5	+17	−1	+15

It will be understood that while the invention has been described in conjunction with specific embodiments thereof, the foregoing description and examples are intended to illustrate, but not limit the scope of the invention. Other aspects, advantages and modifications will be apparent to those skilled in the art to which the invention pertains, and these aspects and modifications are within the scope of the invention, which is limited only by the appended claims. Unless otherwise specifically indicated, all percentages are by weight. Throughout the specification and in the claims the term "about" is intended to encompass + or −5%.

The invention claimed is:

1. A gypsum wallboard comprising:

a gypsum core having a planar first major face and a planar second major face;

a coated non-woven first glass fiber mat facing material suitable for level 4 finishing adhered on a non-coated side to and covering the planar first major face of the gypsum core, wherein the coated non-woven first glass fiber mat facing material comprises a majority of glass fibers of a nominal fiber diameter between about 8 and about 11 microns and a fiber length between about ¼ and about ¾ inch, the glass fibers of the coated non-woven first glass fiber mat facing material being bound together with an adhesive binder comprising an acrylic-type adhesive binder,

wherein the coated non-woven first glass fiber mat facing material has a coating comprising a dried aqueous mixture comprising (i) a mineral pigment, (ii) a polymer adhesive binder and optionally (iii) an inorganic adhesive binder,

and wherein said coated non-woven first glass fiber mat facing material has a basis weight of between about 1.7 and 2.0 pounds per 100 square feet before application of the coating; and

an optionally coated non-woven second glass fiber mat facing material adhered on a non-coated side to and covering the planar second major face of the gypsum core, wherein the optionally coated non-woven second glass fiber mat facing material comprises a majority of glass fibers of a nominal fiber diameter of at least about 13 microns but not more than about 16 microns and a fiber length of at least about ¾ inch but not more than about 1 inch, the glass fibers of the coated non-woven second glass fiber mat facing material being bound together with an adhesive binder comprising an acrylic-type adhesive binder,

and wherein said optionally coated non-woven second glass fiber mat facing material has a basis weight, before application of the optional coating, of between 1.8 and 2.2 pounds per 100 square feet.

2. The gypsum wallboard of claim **1** wherein the gypsum core further comprises a water-resistant additive contained in an amount equal to or greater than 0.2 wt percent based on the total weight of the gypsum wallboard.

3. The gypsum wallboard of claim **2**, wherein the water-resistant additive comprises at least one of a wax emulsion, an organopolysiloxane and a siliconate.

4. The gypsum wallboard of claim **1** wherein the gypsum core further comprises a fungicide.

5. The gypsum wallboard of claim **1** wherein at least about 75 wt percent of the glass fibers of the coated non-woven first glass fiber mat facing material have a nominal fiber diameter between about 8 and about 11 microns and at least about 75 wt percent of the glass fibers of the coated non-woven first glass fiber mat facing material have a fiber length between about ¼ and ½ inch.

6. The gypsum wallboard of claim **1** wherein the coated non-woven first glass fiber mat facing material has a basis weight of between 1.75 and 2.0 lb./100 ft^2 before application of any coating.

7. The gypsum wallboard of claim **6** wherein the coated non-woven first glass fiber mat facing material has a basis weight of about 1.85 lb./100 ft^2.

8. The gypsum wallboard of claim **1** wherein at least 90 wt. percent of the glass fibers of the coated non-woven first glass fiber mat facing material have a nominal fiber diameter of about 11 microns and at least 90 wt. percent of the fibers of the coated non-woven first glass fiber mat facing material have a fiber length between ¼ and ¾ inch.

9. The gypsum wallboard of claim **6** in which the acrylic-type adhesive binder has a glass transition temperature of at least about 20° C., but not above about 115° C.

10. The gypsum wallboard of claim **9** in which the acrylic-type adhesive binder has a glass transition temperature of at least about 30° C., but not above about 55° C.

11. The gypsum wallboard of claim **8** in which the acrylic-type adhesive binder has a glass transition temperature of at least about 20° C., but not above about 115° C.

12. The gypsum wallboard of claim **11** in which the acrylic adhesive binder has a glass transition temperature of at least about 30° C., but not above about 55° C.

13. The gypsum wallboard of claim **1** wherein the basis weight of the second mat is greater than the basis weight of the first mat.

14. The gypsum wall board of claim **13** wherein the basis weight of the second mat is 0.05 pound per 100 square feet greater than the basis weight of the first mat.

15. The gypsum wall board of claim **13** wherein the basis weight of the second mat is 0.15 pound per 100 square feet greater than the basis weight of the first mat.

16. The gypsum board of claim **1** wherein the first glass fiber mat has no fibers having a nominal fiber diameter greater than about 13 microns.

17. The gypsum board of claim **16** where in second glass fiber mat facing material has a basis weight of between about 1.9 and 2.2 pounds per 100 square feet.

18. The gypsum board of claim **17** wherein the second glass fiber mat has no fibers with a nominal diameter of greater than about 16 microns.

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